
CIRM Bridges 3.0

Grant Award Details

CIRM Bridges 3.0

Grant Type: Bridges

Grant Number: EDUC2-12620

Project Objective: This program targets mainly undergraduate, but also some masters level students with specialized coursework, followed by a year-long internship in regenerative medicine at collaborating host institutions. Trainees receive advanced training in research methods and good manufacturing practices and participate in patient engagement and outreach activities to gain awareness of socio-economic issues and disparities around health care and access. Students receive personalized career counseling.

Investigator:

Name:	Amy Sprowles
Institution:	Humboldt State University Sponsored Programs Foundation
Type:	PI

Award Value: \$3,605,495

Status: Active

Grant Application Details

Application Title: CIRM Bridges 3.0

Public Abstract:

In 2004 the people of California, recognizing the significance and potential of stem cell therapies for the treatment of many diseases including degenerative diseases like Alzheimer's disease and macular degeneration, to cancer and even heart disease, passed proposition 71 to fund stem cell research and the development of stem cell therapies. The California Institute of Regenerative Medicine (CIRM) was established to manage the funds, plan and execute programs that would facilitate the development of stem cell therapies. Recognizing the need for a large workforce in stem cell research for the development of stem cell therapies, the initial phase of the program was focused on research and training of individuals in stem cell fields. These efforts have resulted in a substantial increase in the number of scientists and technically trained individuals in the field of stem cell biology and, more importantly, an increase in the number of laboratories and biotechnology industries focused on stem cell research and regenerative medicine in California. In 2020, the people of California passed Proposition 14 to continue to develop treatments, advance clinical trials and achieve new scientific breakthroughs for California's patients with unmet medical needs.

Our CIRM Bridges 3.0 program will produce 50 well-trained and "ready-to-start" laboratory professionals committed to accelerating the discovery, development and delivery of stem cell, gene therapy and related technologies for improving human health. Each year we will select a diverse cohort of 10 highly motivated and well prepared trainees to participate in a yearlong internship in regenerative medicine at our collaborating host institutions located across California. In addition to engaging in extensive laboratory research, these CIRM Bridges 3.0 trainees will receive advanced training in the research methods and good manufacturing practices required to develop cellular- based therapies for unmet medical needs. They will educate our rural, medically underserved community about regenerative medicine and gain awareness of socio-economic issues and disparities around health care and access. Throughout the duration of the 12 month internship, they will receive personalized career counseling so they are poised to enter the workforce upon completion of the program.

Statement of Benefit to California:

The substantial investment of funds by the people of California in stem cell biology and regenerative medicine through Proposition 14 will continue to develop treatments, advance clinical trials and achieve new scientific breakthroughs for California's patients with cancer, diabetes, heart disease, Alzheimer's, Parkinson's, HIV/AIDS, ALS, MS, sickle cell disease, lung diseases, kidney disease, bubble baby disease (ADA-SCID), age-related blindness such as macular degeneration and genetic blindness, epilepsy, stroke, schizophrenia, autism, other mental health and brain conditions, and even infectious diseases like COVID-19. As the first chairperson of the California Institute for Regenerative Medicine Robert Klien stated, "This medical revolution holds the promise of restoring health and quality of life for many of California's individuals and families suffering from chronic disease and injury. However, the last tactical mile to bring this broad spectrum of therapies to patients will require more funding and the thoughtful support of California's public as the human trials and discoveries are refined and tested, overcome numerous obstacles or complications, and ultimately serve to improve the life and reduce the suffering of every one of us."

The CIRM 3.0 Bridges Training Program will develop a workforce technically trained in stem cell and regenerative medicine able to meet these challenges. It will build upon our tremendously successful program history that has attracted nearly 100 talented young people to a field that is responsible for 92 FDA-Approved clinical trials and thousands of discoveries. We have designed our CIRM 3.0 Bridges training program to provide students from diverse backgrounds with training in stem cell and regenerative medicine and a good understanding of the needs of patients with potential for stem cell therapies. They will also be educated with regard to the regulatory process and ethical issues. The development of such a workforce is critical for the future success of the field of stem cell and regenerative medicine, and CIRM 3.0 will have tremendous impact on the present and future economy of the state of California.

